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ABSTRACT

Local and state government agencies and private companies providing hazardous material emergency response services are attempting to meet the minimum training requirements for their employees as specified in federal law. However, none of the employers in a pilot survey met the requirements of the federal law for employer certification of employee competence. This failure represents a potentially enormous liability for such organizations as fire departments or industry-based emergency response units. In some cases, employers may believe they are immune from certain federal regulations, whereas others may be indifferent to the requirements and continue to conduct business as usual. A majority of the other employers are casually attempting to evaluate the performance of their employees; however, they have yet to demonstrate their ability to comply with the intent of the federal law. Emergency response team employers should investigate partnerships that can assist them in the following ways: producing legally defensible, verified job and job position analyses; making recommendations to improve the quality of their current training programs to reflect actual job requirements; and developing defensible first responder, technician, and specialist certification processes. In addition, the Occupational Safety and Health Administration and the Environmental Protection Agency need more precise guidelines for employers to follow during the certification of their employees in order to minimize the potential for legal challenges. (25 references) (Author/KC)

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Legal Implications of an Employer Competency Certification Program

by

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Technical Education and Training Research Report Series

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FORWARD

In recent years, a trend in business and law toward recognizing the value of employee training and development has emerged. We live in an Information Age. Technological advances occur rapidly. Existing educational institutions often cannot adapt quickly enough to provide the technological training that employers require. Even when schools perform well, employees who do not continue their education risk seeing their skills grow as stale as yesterday's news. Therefore, it is not surprising that more and more employers have undertaken the task of training today's workforce. Education is no longer left to the schools. Employers are becoming todays's teachers (Drucker, 1989). There are cases of employee training which affect the public health and safety, such as the training of employees who handle hazardous materials. The law now requires that employers certify the competence of such trained employees. This makes employers the the protectors of public health and safety.

This paper by Professor Sage, Ms. Hawkins, and Ms. Martin makes a valuable contribution to the human resource development profession and executives responsible for safety by bringing attention to some very important initial questions in this area of education and law. This paper examines OSHA regulations which mandate minimum competency requirements for employers to use in certifying the competency of hazardous material emergency response employees. This paper further integrates the EEOC Guidelines on Employee Selection Processes in the development of employee competency certification programs. The EEOC Guidelines were originally designed to provide employers with validated selection procedures to serve the public policy of nondiscrimination in employment. They also include validation techniques that provide validated employee certification procedures to help employers select competent employees, in general.

This report provides several valuable, practical suggestions for employers in responding to legal requirements of employee competency certification. For example, this report proposes that employers use competent, professional, technical trainers to design, develop, and validate their job descriptions, performance appraisal systems, hazardous material training program content, and the content of their competency examinations.

This reports identifies the important question for which a research agenda is needed. Research in needed to address how best to structure legal requirements regarding employee training certification to assure that tasks involving great risk to public health and safety are performed competently by those who undertake them. The education and legal fields can contribute to the understanding of the practices, policies, and procedures which can meet this challenge. This paper is an important first step in that direction.

John D. Blackburn, Esq

ABSTRACT

Local and state government agencies and private companies providing of hazardous material emergency response services are attempting to meet the minimum training requirements for their employees as specified in 29 CFR 1910.120 (q) or NFPA 472. However, none of these employers in a pilot survey meet therequirements of 29 CFR 1910.120 (q)'s for employer certification of employee competence.

This failure represents a potentially enormous liability for organizations, such a fire departments or industry-based emergency response units. In some cases, employers may believe they are immune from the regulation, while others may be totally indifferent to it by continuing to conduct their business as usual. A majority of the other employers are loosely attempting to evaluate the performance of their employees; however, they have yet to demonstrate their ability to comply with the intent of 29 CFR 1910.120 (q).

Emergency response team employers should investigate partnerships that can assist them in producing legally defensible, verified job and job position analyses; in making recommendations to improve the quality of their current training programs to reflect actual job requirements; andin developing defensible first responder, technician, and specialist certification processes. Furthermore, the Occupational Safety and Health Administration (OSHA) and the Environmental Protection Administration (EPA) need more precise guidelines for employers to follow during the certification of their employees to minimize the potential number of legal challenges.

BACKGROUND INFORMATION

A recent federal regulation "Hazardous Waste Operations and Emergency Response" (29 CFR 1910.120) issued by OSHA and EPA, and a professional standard issued by the National Fire Protection Association (NFPA), "Professional Competence of Responders to Hazardous Material Incidents," (NFPA 472; also see *Noblecraft Industries v. Secretary of Labor*) specify minimum competence requirements for employers to use in the certification of each hazardous material emergency response employee's competence. The federal regulation evolved from a requirement specified in Title I, Section 126 of the Superfund Amendments and Reauthorization Act (SARA) in 1986 (29 CFR 1910.120). The SARA requirement ordered the EPA to issue a regulation identical to the final OSHA regulation (29 CFR 1910.120). Therefore, the enforcement of this regulation falls under the authorities of both OSHA and the EPA. Furthermore, this regulation is imposed on all private sector employers and state and local government agencies. The NFPA professional standard is the result of efforts by leaders in the fire service to better protect their employees and the general public. Acceptance and enforcement of this professional standard is left to each employer's discretion.

This OSHA and EPA regulation, and NFPA's professional standard, reflect an emerging trend in federal law and business practice to recognize technical education and training as a means of developing, refining, and certifying

employee competence to reduce the risk(s) or potential risk(s) associated with any hazardous material emergency response incident.

The potential risks associated with an incompetent employee's actions are acute. The risks not only endanger the health and safety of other employees, but also the general health, safety, and welfare of the public and environment.

The critical distinction made by 29 CFR 1910.120 (q) (ii), (iii), and (iv) is its focus on the employer's certification of an employee's competence, not just the employee's attendance at or completion of a required hazardous material training program. A competency certification test (criterion-referenced or mastery) must be used whenever an employer is concerned with the evaluation of an employee's ability to demonstrate a given set of skills in a "real" or "simulated" work environment (Shrock and Coscarelli, 1989). Webster's Ninth New Collegiate Dictionary (1984) further describes a competent employee as having a legally qualified ability.

During December, 1990, a pilot survey of hazardous material training managers, coordinators, supervisors, and trainers representing 25 different hazardous material emergency response employers was conducted in Ohio. Even though this study can not be generalized to all employers, the information gathered during the study and Dr. Sage's personal and professional experiences suggests a potential problem for many employers. Only three of these private sector employers consistently tested employee knowledge and performance. However, none of their evaluation instruments were designed to document any employee competence, job-relatedness, or reliability measures. Another 16 public and private sector employers utilized evaluation activities that simulated a hazardous material release, leak, or spill to observe an employee's performance (competence). Again, none of their evaluation activities utilized a consistent means to record each employee's competence. The remaining six public sector employers merely issued or accepted a certificate of attendance at or completion of a required, externally offered, training program as evidence of their employees' competence.

Even though a majority of these employers were testing their emergency response employees, their present certification process falls short of the requirements stated in 29 CFR 1910.120 (q) and NFPA 472. Furthermore, some of the employers' responses in the pilot survey suggestted that they had an immunity or potential indifference to the OSHA's or the EPA's ability to investigate and enforce the requirements specified in 29 CFR 1910. 120 (q).

In addition, there was a striking lack of awareness and understanding by these employers that their competency certification or competence recommendation process is subject to the Equal Employment Opportunity Commission's (EEOC's)*Uniform Guidelines on Employee Selection Procedures* (Guidelines) (29 CFR 1607).

The *Guidelines* represents six years of effort by the four federal agencies (The Equal Employment Opportunity Commission, the U.S. Civil Service Commission (now the Office of Personnel Management) and the Departments of Justice and Labor) with equal employment opportunity (EEO) responsibilities, to provide employers with a uniform set of requirements to avoid potential discrimination under Title VII of the Equal Employment Opportunity Act that could result from their current employee competency certification process. "Since the Act and

its legislative history support the [Equal Employment Opportunity] Commission. . . , this affords good reason to treat the [G]uidelines as expressing the will of Congress" (*Western Addition Community Organization v. Alioto*; and *U.S. v. Georgia Power Co.*).

Given the requirements in 29 CFR 1910.120 (q), *the Guidelines*, case law precedence, and the information gathered during the pilot study, there appears to be potential liability. Furthermore, an employer's liability can increase when local customs and practices do not meet the standard of care required by OSHA regulations. When an employer fails to take reasonable precautions against hazards generally known in the industry case law has demonstrated that it is considered fair to hold that employer to a standard higher than actual practice (*Cape & Vineyard Division of New Bedford Gas v. OSHRC*; *Bristol Steel & Iron Works v. OSHRC*; and *Donovan v. Missouri Farmers Association*).

These risks appear to be further compounded by the employer's lack of knowledge about OSHA, and the potential risks associated with their indifference to, lack of action in, or insufficient actions in developing an employee competency certification process. Even though OSHA does not impose strict liability on the employer, it does focus liability where harm can, in fact, be prevented (*Central of Georgia Railroad Company v. OSHRC*). Furthermore, the purpose of OSHA is to improve workplace safety conditions, by telling employers what they are required to do in order to prevent or minimize danger or risk to their employees (*Bethlehem Steel v. OSHRC*).

The complexity of this condition raises another critical "legal" dimension; "Are these employers increasing their own risk by committing a "willful" act?" Willful acts, as defined by the Fourth Circuit U.S. Court of Appeals, are any "actions taken knowledgeably by one subject to the statutory provisions in disregard of the action's legality" (*National Steel and Shipbuilding Company v. OSHRC*). Stating it another way: "The failure to comply with a safety standard under the Occupational Safety and Health Act is willful if done knowingly and purposely by an employer, who having a free will or choice, either intentionally disregards the standard or is plainly indifferent to its requirement. An omission or failure to act is willfully done if done voluntarily and intentionally" (*Kent Nowling Construction v. OSHRC and Secretary of Labor*; also see *City of Canton, OH v. Geraldine Harris*).

RESEARCH PROBLEM

The purpose of this Summer Research Opportunity Program study was to investigate the legal implications relating to the development of an employee competency certification program. The results of this*Technical Education and Training Research Report* will help inform employers and their human resource management and development personnel about a number of the issues underlying any kind of employee competency certification process that falls under 29 CFR 1910.120 (q).

The primary objectives of this*Technical Education and Training Research Report* are: 1) to identify the requirements specified in the *Guidelines* and case law relating to the validity of an employer's development of an employee competency certification process; 2) to discuss legitimate, professionally-recognized job analysis

processes and case law precedents relating to an employee competency certification process; and, 3) to discuss implications of current employer practices, while identifying future research needs in the area of employer certification of employee competence.

This *Technical Education and Training Research Report* integrates a review of federal regulations and law, federal case law, and human resource development literature. The researchers accept the fact that 29 CFR 1910.120 (q) requires employers to certify the competence of their employees. However, the researchers recognize that 29 CFR 1910.120 (q) or NFPA 472 do not provide the employer with appropriate guidelines to develop a valid employee competency certification test. Because employee certification is viewed as an employee selection process, the primary reference used in the remaining portions of this report will be the *Guidelines* . This review will be presented in four sections: 1) Validity Measures and Job-Relatedness; 2) Job Analysis: A Critical Foundation for Job-Relatedness; 3) Recommendations for Employers; and 4) Future Technical Education and Training Research Needs.

VALIDITY MEASURES AND JOB-RELATEDNESS

Validity Measures

The following is an integrated discussion that incorporates the validity measures identified in the *Guidelines* and case law interpretations of those *Guidelines*. The *Guidelines*, which were prepared by the four federal departments and commissions, provide employers with a uniform set of requirements designed to assist them in complying with federal law when certifying an employee's competence.

Furthermore, the *Guidelines* apply to any employer practice that will be used to make decisions about a protected employee or future potential employee. Such decisions include, but are not limited to, employee compensation, hiring, promotion, demotion, membership, referral, retention, training, transfer, performance appraisal, and certification, or other terms, conditions, or privileges of employment (29 CFR 1607.2 b; PL 101-336; and *Brito v. Zia Co.*). Any employer practices which have an adverse impact on an employee or a group of employees is considered discriminatory and inconsistent with these *Guidelines* and PL 101-336, unless the procedure has been validated in accordance with currently published *Guidelines* (29 CFR 1607.3 a).

Specifically, the *Guidelines* recognize three types of validity measures to establish job-relatedness or business necessity: 1) criterion, 2) content, and 3) construct. The court has declared job-relatedness and business necessity to be equivalent terms in an employee selection process (*Contreras v. City of Los Angles*). The court has also declared that the certification process used by an employer shall reflect the duties and functions performed by an employee on-the-job (29 CFR 1910.120 (q) (6); and NFPA 472). The underlying basis of any validity measure is to demonstrate that the job analysis, training program, or competency test are job related or that they are necessity for the employer to function (*Jones v. Human Resources Administration*; *Kirkland v. Dept. of Correctional Services*; *Western Addition Community Organization v. Alioto*; and *Davis v. Washington*). Therefore, a job-related

competency test is one that accurately measures the capacity of an employee to perform the job. This concept involves principles and issues outside the experience of most managers and lay employees (*Vulcan Society v. Civil Service Commission*). Thus, a job-related reason is required for an employer to justify a practice, standard or procedure which operates to deny minorities and women employment opportunities (*Rowe v. General Motors Corp*).

Criterion Validity

Criterion validity measures empirical data that demonstrate that the competency certification test is significantly correlated to or predictive of the essential job performance. Content validity measures data showing that the competency test's content represents the essential performance functions of the job for which the employee is being evaluated. Construct validity measures data showing that the competency test measures identifiable employee characteristics determined to be essential for satisfactory job performance. The above validation procedures are intended to be consistent with the standards established by the American Psychological Association for evaluating any standardized test (29 CFR 1607.5; *and Washington v. Davis*). Each of these validity measures are based on the identification or review of essential job information (job analysis) by a professional technical education and training specialist.

Criterion validity measures are based upon a verified job analysis except where a standardized performance rating of the overall job shows that it is the proper criterion. When an employee's training performance is used as the competency criterion, the employee's success must demonstrate relevance to the training program's content and the essential performance functions of the job as determined by a job analysis, or, demonstrate a relationship between the training program's performance measures and the measures of job performance (29 CFR 1607.14 b). Case law implies that criterion validity is the preferred validity measure (*Western Addition Community Organization v. Alioto*; *Brunet v. City of Columbus*; and *Vulcan Society v. Civil Service Commission.*

Contern Validity

Content validity measures are also based on a verified job analysis which includes an analysis of the essential employee behaviors required for successful job performance. More importantly the job analysis used with this validity measure focuses on the essential work behaviors and their respective tasks. Should the employee's work behavior be a mental process, the job analysis would identify and analyze the essential performance functions of the job, service(s) rendered, or product(s) produced that can be observed. Furthermore, the behaviors analyzed must reflect the critical or essential elements of the job (29 CFR 1607.14 C(2) and *Fowler v. Schwarzwalder*). In addition, content valid measures must show "not only that the knowledge, skills, and abilities tested . . . coincide with . . . the knowledge, skills, and abilities required [to] successfully [perform the job], but also that 1) the attributes selected for examination are critical and not merely peripherally related to successful job performance; 2)

the various portions of the examination are accurately weighted to reflect the relative importance to the job . . .; and 3) the level of difficulty of the exam matches the level of difficulty of the job" (*Kirkland v. Dept. of Correctional Services*).

Content validity measures are also used to determine job-relatedness when an employer asserts that its initial group of candidates to be appointed is too small for a valid predictive criterion validity measure, and the number of present employees is less than the number needed to meet the mathematical assumptions of the statistic or current professional standards. In addition, the accuracy of the content measure depends on the accuracy and quality of the performance evaluations representing a group of employees who perform the identified job performance functions (*Bridgeport Guardians v. Police Dept.*).

Training success content validity measures are used when an employee's success in a training program is used as the competency certification criteria. This is allowable if the training program's content has been determined to be content valid. Furthermore, the content of the training program must reflect the essential performance functions of the job, as determined by a professional job analysis (29 CFR 1607 c (7)).

Construct Validity

Construct validity measures are also based on a verified job analysis. This job analysis identifies the work behaviors required for successful job performance, the critical or essential job performance functions, and the constructs that underlie the job performance functions and the respective behaviors that relate to successful job performance. Each construct is named and identified so that it is distinguishable from all other constructs (29 CFR 1607 D (2).

A competency test is considered "job-related" or a "business necessity" when it reflects the essential performance functions of the job, the skills and knowledge used to perform those performance functions, and the employee appropriate behaviors. However, none of these validation measures are mutually exclusive-rather, they represent the type of inference the employer wishes to draw from the competency test scores (*Gillespie v. State of Wisconsin*; and *Jones v. Human Resources Administration*).

To amplify the relationship between job analysis and a competency test, a verified job analysis conducted in accordance with the *Guidelines*, validates only the content of the job analysis. This validity measure allows the job analysis to then form the foundation for the design and development of a job-related technical training program and its respective competency tests. However, a verified job analysis does not infer that the training program's content or the competency test's items are valid. The content of the training program and the content of the competency test must individually demonstrate that it is valid and related to the job content identified in the verified job analysis (*Western Addition Community Organization v. Alioto*).

JOB ANALYSIS: A CRITICAL FOUNDATION FOR JOB-RELATEDNESS

The following is an integrated discussion that describes job analysis as a process identified in the *Guidelines*, human resource development literature, and the precedents established by case law. A job analysis represents the foundation for all technical education and training activities related to successful high-risk technical training activities and organizational performance. Job analysis is not new, but the term "job analysis" gives one the impression that there is only one way to analyze a technical job-- however, this is false. This is amplified by Ash (1988), who broadly defines job analysis or work analysis as the collection and analysis of any type of job-related information by any method for any purpose.

Origins of Job Analysis

Theorigins of job analysis are deeply rooted in history. The emperor of China in 1115 B.C. required all applicants for government jobs to take an examination, the content of which was based on a rational job analysis. An early description of job analysis can also be traced to Socrates and his exploration of a "just" state in the Fifth Century B.C. However, the term job analysis appeared in recent management literature during the early 20th century A.D. In 1916, Taylor referred to work (job) analysis as the first of four great principles of the scientific management movement (Ash, 1988; Fine, 1988; Mitchell, 1988).

According to Mitchell (1988), a 1983 survey by Levine, Ash, Hall, and Sistrunk indicated that the three most consistently used job analysis processes were: 1) functional job analysis, 2) position analysis questionnaire, and 3) the comprehensive occupational data analysis program. These job analysis processes were selected based upon the utility of their characteristics: 1) time and cost to complete, 2) human resource management uses, 3) job evaluations, 4) performance appraisals, and 5) training.

Common Job Analysis Strategies

Functional Job Analysis

Functional job analysis (FJA) grew out of Sidney Fine's Functional Occupational Classification Project in 1950. This process is utilized by numerous private and government organizations and is characterized by: 1) what gets done and what do workers do to get things done; 2) what workers do in relation to data, people, and things; 3) the relationship of data, people, and things--the way workers function in unique ways while utilizing their mental resources, interpersonal skills, and resources; 4) how all jobs require their respective workers to relate to data, people, and things to some degree; 5) how the tasks of a job can be described in a variety of ways, however there are only a

few definitive functions involved; and, 6) how the functions are related to data, people, and things in a hierarchial and ordinal way. The hierarchies and ordinal positions form the worker function scales of FJA.

Functional job analysis also provides the analyst with two worker function scales: 1) the level of involvement, and 2) the orientation of involvement. The level of involvement is indicated by a specific job-related function in each hierarchy. The orientation of involvement reflects the relative involvement of an employee and is expressed by the analyst as a percent (McCormick, 1979; and Primoff and Fine, 1988).

The most common uses of a functional job analysis, according to McCormick's and Jeanneret's review of Levine's, Ash's, Hall's, and Sistrunk's research, are: 1) job descriptions, 2) job classifications, 3) job evaluations, 4) job designs, 5) personnel specifications, 6) performance appraisals, 7) employee training, 8) employee mobility, 9) efficiency and safety, 10) work force planning, and 11) legal requirements. However, the above uses can also generate a series of practical concerns: 1) occupational stability, 2) respondent and user acceptability, 3) amount of analyst training required, 4) operations, 5) sample size, and 6) quality of outcome (McCormick and Jeanneret, 1988).

Position Analysis Questionnaire

The Position Analysis Questionnaire (PAQ) was developed by McCormick and his associates at Purdue University. The PAQ purports to cover the work-oriented and worker-oriented variables of nearly all jobs.

The PAQ is a structured job analysis questionnaire composed of 187 worker-oriented job elements about various activities and work situation variables. The PAQ's job elements are organized into six divisions: 1) information input, 2) mental processes, 3) work output, 4) relationships with other persons, 5) job context, and 6) other job characteristics. When the PAQ is used by an organization, there are seven major phases that most PAQ job analyses include: 1) defining project objectives, 2) obtaining organizational support, 3) determining data collection procedures, 4) determining sample size, 5) training PAQ analysts, 6) collecting data, and 7) processing collected data with a computer.

The most common uses of a job analysis employing PAQs, according to McCormick's and Jeanneret's review of Levine's, Ash's, Hall's, and Sistrunk's research, are: 1) job classifications, 2) Job evaluations, 3) personnel specifications, 4) employee mobility, 5) safety and efficiency, 6) work force planning, and 7) legal requirements. However, the above uses also have their practical concerns: 1) occupational versatility, 2) standardization, 3) responder and user acceptability, 4) amount of analyst training required, 5) operations, 6) sample size, 7) off the shelf, 8) reliability, 9) cost, 10) quality of outcome, and 11) time to completion. This job analysis method performs well across a wide-range of jobs from entry level through the senior professional ranks (McCormick and Jeanneret, 1988; and Primoff and Fine, 1988).

Comprehensive Occupational Data Analysis Program

The Comprehensive Occupational Data Analysis Program (CODAP) is the result of four decades of research that was initiated by the Joint Chiefs of Staff in 1949. In late 1957, Headquarters United States Air Force established this occupational research project. However, it took another 10 years to develop the approach (a task inventory (TI)) for each major occupational area) and a set of computer programs to analyze the large amounts of collected data. The resulting approach was called TI/CODAP (Mitchell, 1988).

The TI method of job analysis, along with a flexible set of computer programs that analyze and report the data for management, has become a very economic, systematic, and quantitative way to collect job information from all incumbents and supervisory personnel. The TI approach employs a two section questionnaire: 1) background information and 2) task inventory data. The background section gathers personal and employment information from each respondent. The TI section gathers data on the amount of time spent performing a particular task in comparison to all other tasks.

The most common uses of the TI/CODAP process, according to McCormick's and Jeanneret's review of Levine's, Ash's, Hall's, and Sistrunk's research are: 1) job descriptions, 2) Job classifications, 3) job evaluations, 4) job design, 5) performance appraisals, 6) employee training, 7) employee mobility, 8) safety and efficiency, 9) work force planning, and 10) legal requirements. However, the above uses also generate a series of practical concerns: 1) occupational stability, 2) standardization, 3) respondent and user acceptability, 4) operational, 5) reliability, 6) costs, and 7) quality of outcome (McCormick and Jeanneret, 1988).

Job Analysis Characteristics

The *Guidelines* (29 CFR 1607.5 (b) (3)) establish that job analysis is one of the most critical professional standards necessary to determine any job-relatedness (validity) measure. Thus, a job analysis must represent a careful, systematic review of critical work behaviors and qualities that describe an employee's job performance. The Southern U.S. District Court of New York (see *Jones v. Human Resources Administration*) indicates that a professional job analysis represents the full spectrum of any job position and describes the required knowledge, skills, and abilities that the job position requires and the level(s) of competence required to perform them satisfactorily. Furthermore, a job analysis for one job is not necessarily suitable or defensible for any other job. The absence of a careful, systematic, and professionally conducted job analysis is fatal to any job-relatedness measure (Rogers v. Int'l Paper Co; *Vulcan Society v. Civil Service Commission*; *Kirkland v. Dept of Correctional Services*; *Fowler v. Schwarzwalder*; and *Jones v. Human Resources Administration*).

Thompson and Thompson (1982) discuss the characteristics representative of careful job analysis procedures that the courts have accepted. In *Davis v. Washington* the court accepted the job analysis because the judgmental questions portrayed by the critical incidents were chosen by the most informed and expert employees of the

organization and then reviewed by another panel of employees and testing experts. A court also accepted the job analysis in the *Firefighters Institute for Racial Equality v. City of St. Louis*, because it consisted of interviews with randomly selected incumbents wherein all critical incidents and qualities were identified. The data were then ranked in importance and relative frequency of performance. In a landmark court case, *Guardians Association of NYC Police Dept. v. Civil Service Commission of New York*, the job analysis process was somewhat flawed but adequate enough to meet the standards specified in the *Guidelines*. The procedure involved: 1) accomplishing the identification of tasks performed was accomplished by interviewing 49 incumbents and 49 supervisors; 2) reviewing and editing the task inventory by a panel of seven incumbents and supervisors; 3) distributing a questionnaire to 5,600 incumbents asking them to rate each task on frequency of performance, importance, and the amount of time spent performing the task; 4)Cluster analyzing the previously ranked tasks; and 5) analyzing by a separate panel of incumbents to identify the required knowledge, skills, and abilities required to perform the tasks at an entry level of employment and to rank the importance of each task within the cluster to establish an overall cluster value.

Furthermore, Thompson and Thompson (1982) indicate that the job analysis must be performed, and it must represent the job position for which the selection device is being developed. In addition, the job analysis data should be gathered from several up-to-date sources, such as: 1) interviews with incumbents, supervisors, and administrators; 2) training manuals and other critical materials; 3) observed on-the-job performance; and 4) questionnaires and checklists. Most critically, the data must be gathered by an expert job analyst, and the job analysis data must reflect a large enough sample of job incumbents to assure job-relatedness or the business necessity for the job position.

The tasks, duties, competency level(s) required, and other employee qualities must be identified and included in the final job analysis product. However, only the most important qualities are used to develop the employee selection device. Finally, the courts stress that the identification of the job tasks (task inventory) is a pre-requisite for a careful, systematic job analysis.

In litigation, the employer has the burden of proof that its job analysis, training, and tests are job-related (*Watkins v. Scott Paper Co.*; *Western Addition Community Organization v. Alioto*; and *Connecticut v. Teal*). Even if the employer meets the burden, the complaining party may show that other tests could also serve the employer's business necessity (Watkins v. Scott Paper Co.).

RECOMMENDATIONS FOR EMPLOYERS

Rather than merely winning a court case, the sincere objective for an employershould be a thorough understanding of the laws, regulations, and professional standards necessary to insure the health and well-being of workers, the public, and the environment. Every public agency and private organization needs to address the intent of this OSHA regulation and endeavor to employ only the "most" competent employees for this business necessity. However, that cannot be accomplished without making a critical, employee-related decision. Each time an employer

makes an employee-related decision, there is an additional potential for a discriminatory act to occur. Therefore, in order to minimize this liability, it is essential that every employer clearly demonstrate its efforts to follow current *Guidelines*..

Currently, the skills and experiences needed to develop and validate an employee competency test are beyond those of most employers and employees. Therefore, it is critical that the employer obtain the assistance and guidance of a competent professional technical trainer to design, develop, and validate its job descriptions, performance appraisal system, hazardous material training program content, and the content of its competency examination. This process will require approximately three years to complete and cost a few hundred thousand dollars. It is the key to a competent offensive. Essentially, the employer must proactively ask itself: "How much, is one human life worth?" Or, reactively ask itself: "How much time and money will one personal, professional, or criminal liability suit cost?"

Furthermore, employers, such as emergency medical, fire or police chiefs, hospital emergency room supervisors, plant managers, hazardous material coordinators and training managers, need to recognize these federal regulations and professional standards as critical to their organization's well being; maintain a positive attitude toward them; and be proactive so they can empower themselves and create an offense, cost-controlling position. If an employer chooses to remain reactive, it will constantly be on the defensive, powerless, highly emotional, and endure uncontrollable rising costs.

The following recommendations are suggested as ways to minimize an employer's personal and professional risks:

1. Conduct a verified job analysis for each job position within the organization that relates to OSHA's and the EPA's regulation.
2. Use the results of the verified job analysis to prepare a detail job position description for each employee, which specifies the content of each hazardous material training program identies the critical elements of a performance appraisal system and specifies the content of each competency test.
3. Certify only those employees who can demonstrate their "job-related" knowledge and skills on real or simulated hazardous material incident tasks, are mature, and are very safety conscious.
4. Carefully document each employee's training, training attendance, training evaluation scores, safety test content and scores, competency test scores, and performance appraisal data.
5. Know the limits of authority, legal rights, and legal responsibilities of an employer.
6. Know the legal rights and responsibilities of employees.
7. Hire a competent team of professional technical trainers, familiar with hazardous material responses, to conduct the job analysis process, and design and validate the competency tests.
8. Become aware of and sensitive to potential problems.
9. Be sensitive to the learning and test taking styles and disabilities of employees.

10. Make sure that all job descriptions, training program content, and criterion-validated competency test content are job-related (a business necessity) and are tied to a criterion-validated job analysis.
11. Stress the training and frequent evaluation of safe attitudes and responsibilities.
12. Once the competency test is validated, revisit the content of the job analysis and job position description to ensure current relevancy.
13. Use the tools, materials, and equipment during training and competency testing that are used on-the-job by certified personnel.
14. Exercise reasonable supervision during training, certification testing, and on-the-job to minimize potential problems and to keep supervisory personnel aware of knowledge and skills.
15. In order to maximize the quality of your products and programs, devote time and attention to the employee development and certification processes.
16. Make sure that each employee knows the mission statement of the organization, and its current objectives.
17. Request that OSHA and EPA Committees clarify the certification procedure to be used or indicate that employers and their respective training officers are to operate within *Guidelines*.

FUTURE TECHNICAL EDUCATION AND TRAINING RESEARCH NEEDS

Based on the findings of this study, several technical education and training research needs have surfaced. The most important research need seems to be a federal-state-employer communications audit. This stems from the perceived lack of understanding about how the OSHA, EPA, and NFPA regulations concerning employer certification of an employee's competence relates to EEO's *Guidelines*. This perceived lack of understanding suggests that there were, and possibly still are, poor communication and training among employers and OSHA, EPA, EEO, and NFPA representatives, and that the regulations were not and are possibly still not precise enough for employers to follow efficiently. Some important questions to investigate are: "How were the employers informed and educated about these regulations and professional standard?", "Is there a better way to accomplish this process?" "Has OSHA, EPA, EEOC, or NFPA conducted any follow up studies?"

The issue of a federal-state-employer communications audit raises a second research need-a management audit. Some important questions that need to be investigated are: "How have these employers organized, implemented, and monitored the change necessary to implement the OSHA and EPA regulation or NFPA standard?" "If the employers did not organize a change management process, how do they expect to implement and maintain OSHA's and the EPA's regulation?" "If employers are slow in implementing this regulation, what is the market value of the currently offered hazardous material training programs?" "How many employers have sufficiently detailed job analyses and job descriptions to improve the content quality of these hazardous material training programs?" "How efficiently are these employers managed?" "How many of these employers have professionally trained personnel and training officers?" "If they do not employ professionally trained personnel and training officers,

what qualifications do these employees have to perform these jobs?" "What is the functional literacy and technical literacy levels of their emergency response employees? and of their managers?"

A third research need identified is an organizational consolidation audit. Some important questions that need to be investigated are: "If this perceived management liability really exists, what can OSHA, EPA, EEOC, and NFPA do to rectify this problem?" "What type and how many management training programs are needed to update these employers?" and "What is an efficient cost-effective way to organize a regional consortia to fund and oversee the job analyses, training program content, performance appraisal system, and competency test validation processes?"

The fourth research need is a resource audit. Hazardous material incidents require significantly more time, personnel, and money to resolve than the traditional services provided by many of these employers. The following research questions need to be investigated: "How many small employers have not taken action due to the breadth and amount of resources needed to control and contain a hazardous material incident?" "How many small employers have joined other employers to create regional response teams so as to minimize the cost for all participants?" "If small regional response teams have been created, how many of them have begun to address the OSHA, EPA, NFPA, and EEO *Guidelines*?"

SUMMARY

The certification of hazardous material emergency response employees' competence is essential for safe, efficient organizational performance. Furthermore, the competency training and certification process should assist each employer in improving its work environment's safety, its quality of safety instruction and hazard identification, and each employee'sperformance. If employers are lax in implementing these regulations. In how much jeopardy are they placing the general public and environment?" It is just a matter of time before another hazardous material incident will occur. Therefore, is the potential economic loss and cost, loss of life, personal injury or illness, or environment damage worth the lack of investment in and certification of these employees? Let us develop a well-grounded, competent offense in order to prevent the need for a reactive defense.

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REFERENCES

Americans with Disability Act (PL 101-336) .

Ash, R.A. "Job Analysis in the World of Work." In *The Job Analysis Handbook for Business, Industry, and Government*, edited by S. Gael, Vol. I. New York: John Wiley & Sons, 1988.

Civil Rights Act of 1964 (PL 99-499; PL 100-202; 29 USC 655).

Cornelius, III, E.T. "Practical Findings From Job Analysis Research." In *The Job Analysis Handbook for business, Industry, and Government*, edited by S. Gael, Vol. I. New York: John Wiley & Sons, 1988.

Crystal, R. E. and J. J. Weissmuller. "Job-Task Inventory Analysis." In *The Job Analysis Handbook for business, Industry, and Government*, edited by S. Gael, Vol. II. New York: John Wiley & Sons, 1988.

Fine, S.A. "A History of Job Analysis" In *The Job Analysis Handbook for Business, Industry, and Government*, edited by S. Gael, Vol. I. New York: John Wiley & Sons, 1988.

Gael, S. (ed.) 1988. The Job Analysis Handbook for Business, Industry, and Government, Vol I. New York: John Wiley & Sons.

Gael, S. (ed.) 1988. The Job Analysis Handbook for Business, Industry, and Government, Vol II. New York: John Wiley & Sons.

Hazardous Waste Operations and Emergency Response (29 CFR 1910.120).

Hudgins, H.C., Jr. and R. S. Vacca. (1979). Law and Education: Contemporary Issues and Court Decisions. Charlottesville, VA: The Michie Company.

Landy, F.J. and J. Vasey. 1991. Job Analysis: The composition of SME Sample. *Personnel Psychology* 44: 27-50.

McCormick, E.J. 1979. Job Analysis: Methods and Applications. New York: AMACOM.

McCormick, E.J. and P.R. Jeanneret. Position Analysis Questionnaire (PAQ). In *The Job Analysis Handbook for business, Industry, and Government*, edited by S. Gael, Vol. I. New York: John Wiley & Sons, 1988.

Mitchell, J.L. "History of Job Analysis in Military Organizations." In *The Job Analysis Handbook for business, Industry, and Government*, edited by S. Gael, Vol. I. New York: John Wiley & Sons, 1988.

Primoff, E.S. and S.A. Fine. "A History of Job Analysis." In *The Job Analysis Handbook for business, Industry, and Government*, edited by S. Gael, Vol. I. New York: John Wiley & Sons, 1988.

Professional Competence of Responders to Hazardous Material Incidents. No.472 Battery Park, Mass: National Fire Protection Association, 1989.

Shrock, S.A. and W.C.C. Coscarelli. 1989.Criterion-Referenced Test Development: Technical and Legal Guidelines for Corporate Training. Reading, Mass: Addison-Wesley Publishing Company, Inc.

Russell, J.S. 1984. A Review of Fair Employment Cases in the Field of Training. *Personnel Psychology* 37: 261-271.

Sage, J.E. 1991. "High-Risk Occupations: A Challenge for Change." In Organizational Issues and Human Resource Development Research Questions, edited by R.L. Jacobs, Columbus, OH: University Council for Research in Human Resource Development, The Ohio State University, College of Education, 53-56.

Sage, J.E. 1990. *Safe Attitudes Minimize Trainer Liability*. Technical & Skills Training.

Sage, J.E. 1986. *Technical and Skill Training*. Fire Engineering 139 (3), 22-29

Sage, J.E. 1986. *Design a Training Program*. Fire Engineering 139 (11), 22-27.

Thompson, D.E. and T.A. Thompson. 1982. Court Standards for Job Analysis in Test Validation. *Personnel Psychology*, 35: 865-874.

Uniform Guidelines on Employee Selection Procedures (29 CFR 1607) (1978); Federal Register, 43 (166): 38290-38309.

Webster's Ninth New Collegiate Dictionary. 1984. Springfield, Mass: Merriam-Webster Inc., Publishers.

CASES REVIEWED:

Albemarte Paper Co., v. Moody. 10 FEP 1181 (1975).

Allen v. Isaac. 39 FEP 1142 (1986).

Beddingfield v. City of Pulaski, Tenn. 861 F.2d 968 (1989).

Bethlehem Steel v. OSHRC. 573 F.2d 161 (1978).

Boner v. Board of Commissioners. 674 F.2d 693 (1982).

Bordanaro v. Mclead. 871 F.2d 1151 (1989).

Bridgeport Guardians v. Police Dept. 16 FEP 486 (1972).

Bristol Steel & Iron Works v. OSHRC. 601 F.2d 717 (1979).

Brito v. Zia Co. 5 FEP 1203 (1972).

Brunet v. City of Columbus. 642 F.Supp 1216 (1986).

Cape & Vineyard Division of New Bedford Gas v. OSHRC. 512 F.2d 1148. (1975).

City of Canton, Ohio v. Geraldine Harris. 103 L Ed 2d 412 (1989).

Central of Georgia Railroad Company v. OSHRC. 576 F.2d 620 (1978).

Chance v. Board of Examiners. 4 FEP 596 (1971).

Connecticut v. Teal. 457 U.S. 441 (1982).

Contreras v. City of Los Angles. 25 FEP 872 (1981).

Craig v. County of Los Angeles. 24 FEP 1105 (1980).

Davis v. Washington. 5 FEP 293 (1972).

Donovan v. Missouri Farmers Association. 674 F.2d 690 (1982); 690 F.2d 690 (1983).

Firefighters Institute for Racial Equality v. City of St. Louis. 14 FEP 1486 (1977).

Fowler v. Schwarzwalder. 5 FEP 271 (1972).

General Dynamics v. OSHRC. 599 F.2d 453 (1979).

Gillespie v. State of Wisconsin. 38 FEP 1483 (1985); 39 FEP 1424 (1986).

Griggs v. Duke Power Company. 3 FEP 178 (1971).

Jones v. Human Resources Administration. 12 FEP 264 (1975).

Kent Nowling Construction v. OSHRC and Secretary of Labor. 593 F.2d 368 (1979); 648 F.2d 1278 (1981).

Kirkland v. Dept. of Correctional Services. 7 FEP 694; 374 F.Supp 372 (1974); and 520 F.2d 420 (1975).

Lewis v. City of Irvine, Ky. 899 F.2d 451 1990).

Marshall v. M.W. Watson, Inc. 652 f.2d (1981).

National Steel and Shipbuilding Company v. OSHRC. 602 F.2d 311 & 314 (1979).

Noblecraft Industries, Inc. v. Secretary of Labor and OSHRC. 614 F.2d 199 (1980).

Rogers v. Int'l Paper Co. 10 FEP 412 (1975).

Rowe v. General Motors Corp. 4 FEP 449 (1972).

Stoneking v. Bradford Area School Dist. 882 F.2d 720 (1989).

Thomas v. City of Evanston, 610 F. Supp 422; 42 FEP 1795 (1985).

True Drilling Co. v. Donovan. 703 F.2d 1087 (1983).

Turley v. School District of Kansas City, Mo. 713 F.Supp. 331 (1989).

U.S. v. City of Chicago. 549 F.2d 415 (1977).

U.S. v. Georgia Power Co. 474 F.2d 906 (1973).

U.S. v. State of New York. 21 FEP 1286; 6 FEP 1045 (1973).

Vulcan Society v. Civil Service Commission. 5 FEP 1229; 6 FEP 1045 (1973).

Washington v. Davis. 426 U.S. 229 and 247 (1975); 12 FEP 1415 (1976).

Watkins v. Scott Paper Co. 12 FEP 1208 (1976).

Western Addition Community Organization v. Alioto. 4 FEP 772 (1972); 6 FEP 87 (1973).